

# Global Tropics Hazards And Benefits Outlook

8/17/2021

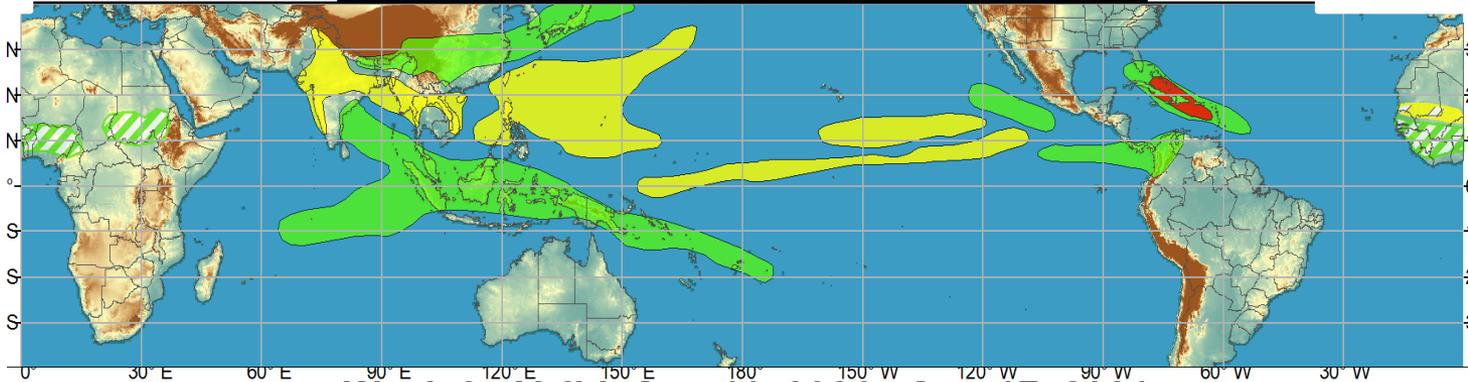
Brad Pugh

## Outline

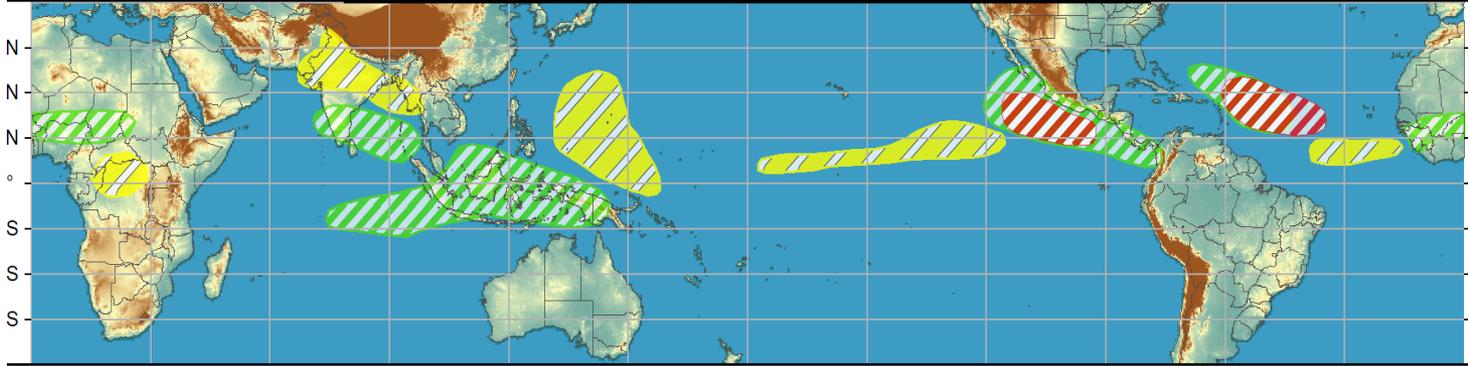
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

# Outlook Review

**Week 1 - Valid: Aug 11, 2021 - Aug 17, 2021**

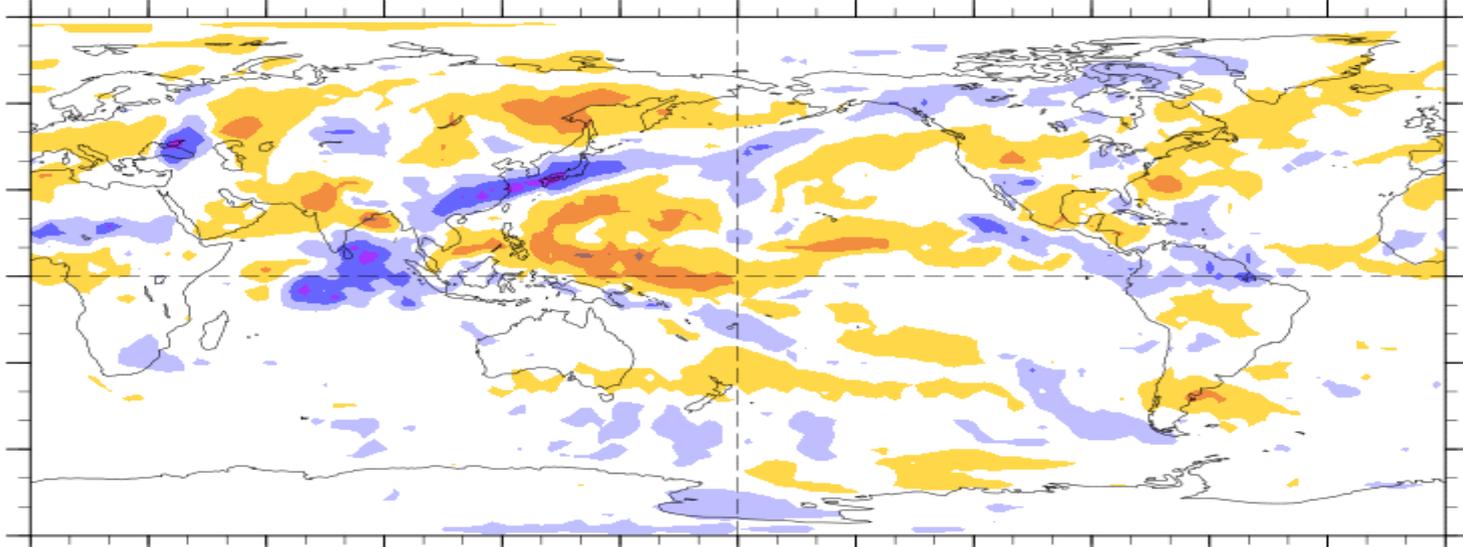


**Week 2 - Valid: Aug 11, 2021 - Aug 17, 2021**



7-Day Average OLR Anomaly

2021/08/09 - 2021/08/15



Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain

# Synopsis of Climate Modes

## **ENSO: (August 12, 2021 Update)**

- ENSO Alert System Status: [La Niña Watch](#)
- ENSO-neutral is favored for the remainder of the Northern Hemisphere summer and probabilities of La Niña increasing to 60 percent by September-October-November.

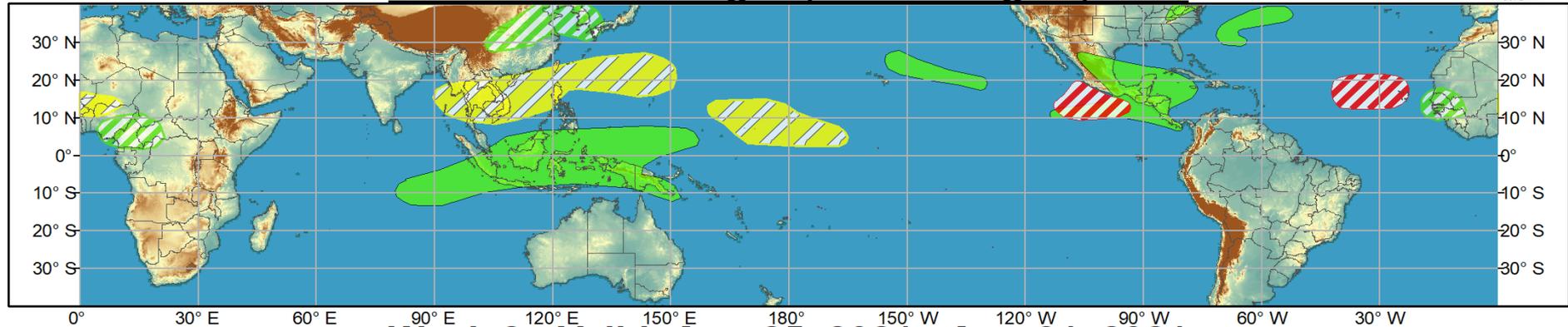
## **MJO and other subseasonal tropical variability:**

- The MJO remains active but interference from Rossby waves stalled its eastward propagation during the past week.
- Resumed eastward propagation across the Indian Ocean is predicted for week-1 with forecast uncertainty increasing beyond that time.
- Elevated chances for tropical cyclone (TC) development through week-1 for the tropical Atlantic, followed by an expected lull during week-2.
- Chances for TC development likely to increase across the West Pacific by week-2.

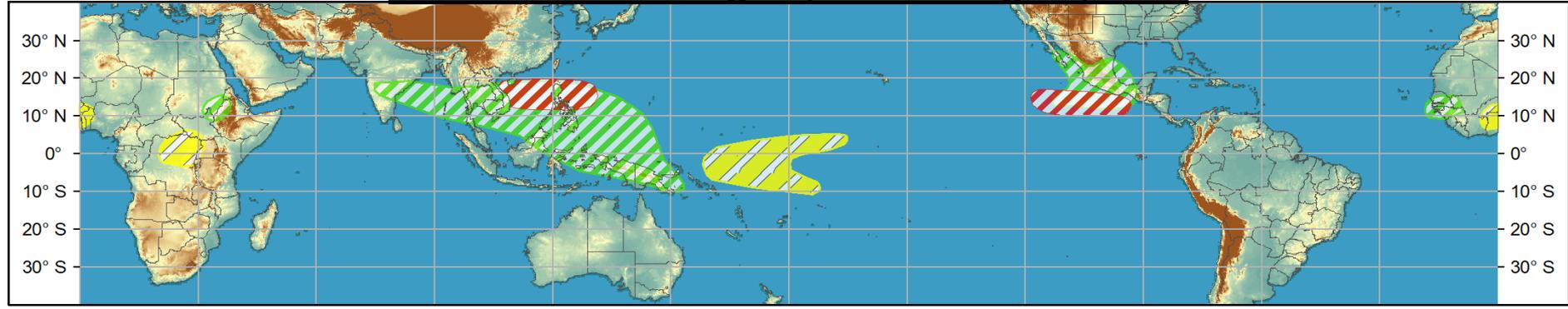


# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

## Week 1 - Valid: Aug 18, 2021 - Aug 24, 2021



## Week 2 - Valid: Aug 25, 2021 - Aug 31, 2021



Produced: 08/17/2021  
Forecaster: Pugh

Confidence		
High	Moderate	
		<b>Tropical Cyclone Formation</b> Development of a tropical cyclone (tropical depression - TD, or greater strength).
		<b>Above-average rainfall</b> Weekly total rainfall in the upper third of the historical range.
		<b>Below-average rainfall</b> Weekly total rainfall in the lower third of the historical range.
		<b>Above-normal temperatures</b> 7-day mean temperatures in the upper third of the historical range.
		<b>Below-normal temperatures</b> 7-day mean temperatures in the lower third of the historical range.

Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



# IR Satellite & 200-hpa Velocity Potential Anomalies

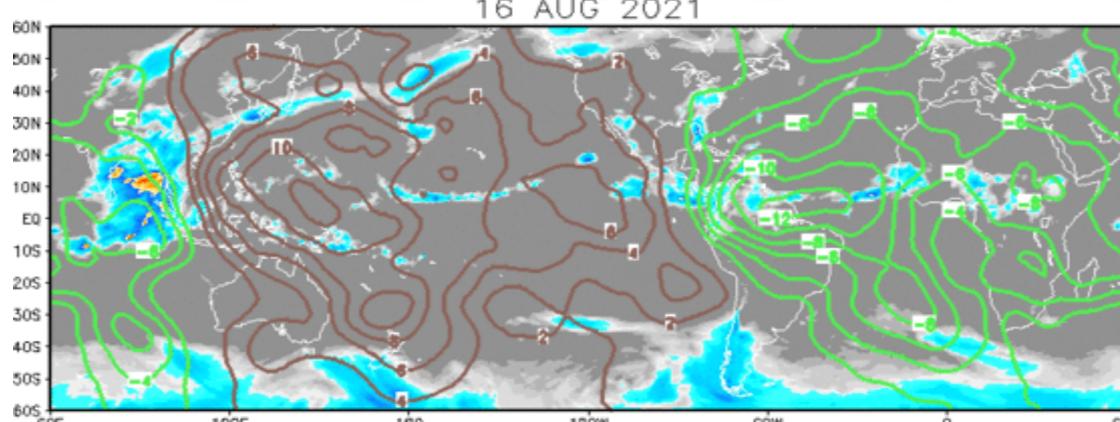
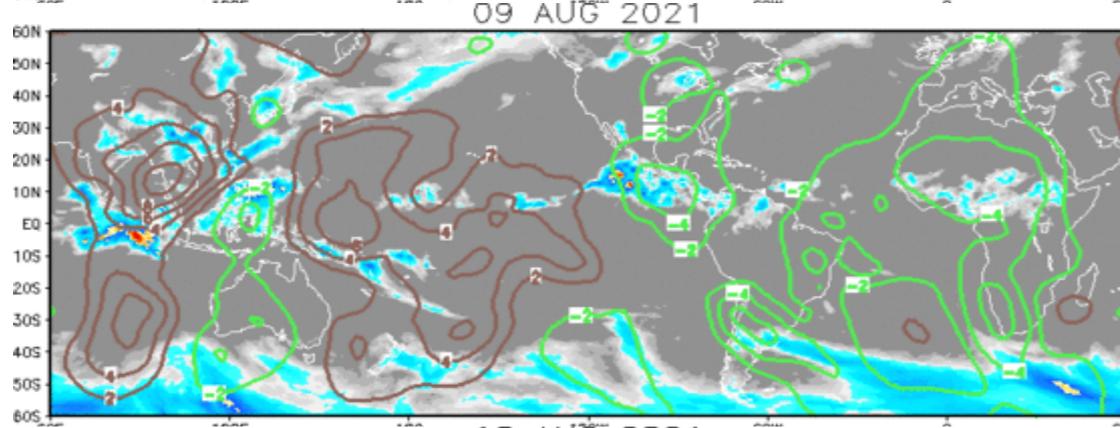
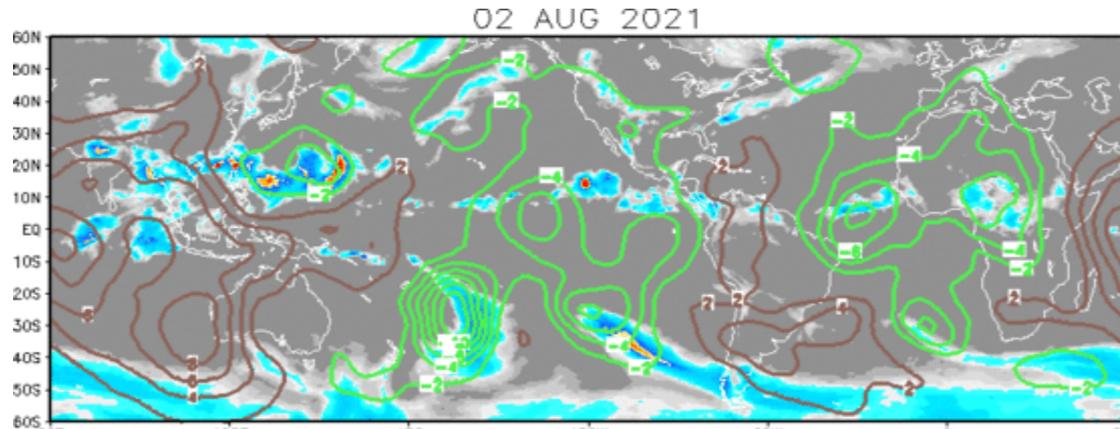
Green: Enhanced Divergence

Brown: Enhanced Convergence

Wave-2 asymmetry as a Kelvin wave ahead of the main MJO envelope crossed the Atlantic.

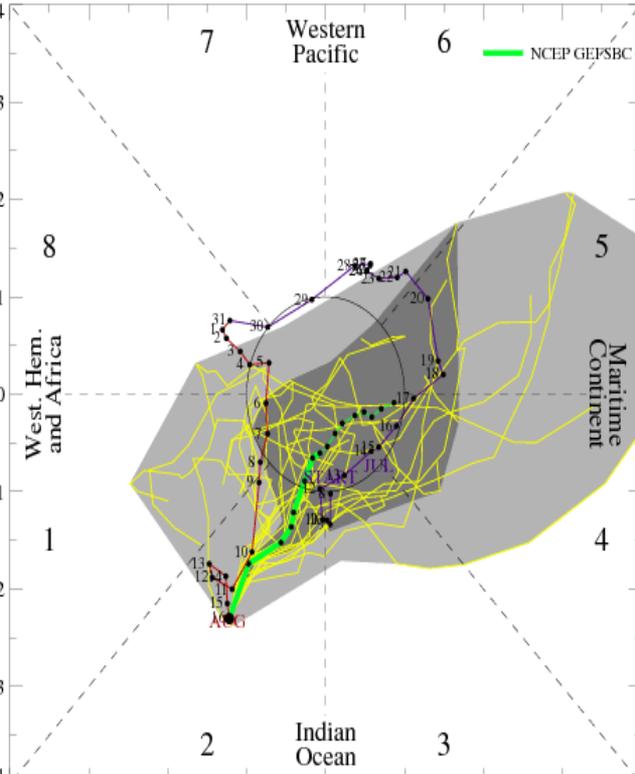
Enhanced phase over the Western Hemisphere, note Rossby wave interference over the Maritime Continent.

Anomalous upper-level divergence persists over the tropical Atlantic and Africa, but anomalous upper-level convergence shifting east of the Date Line.

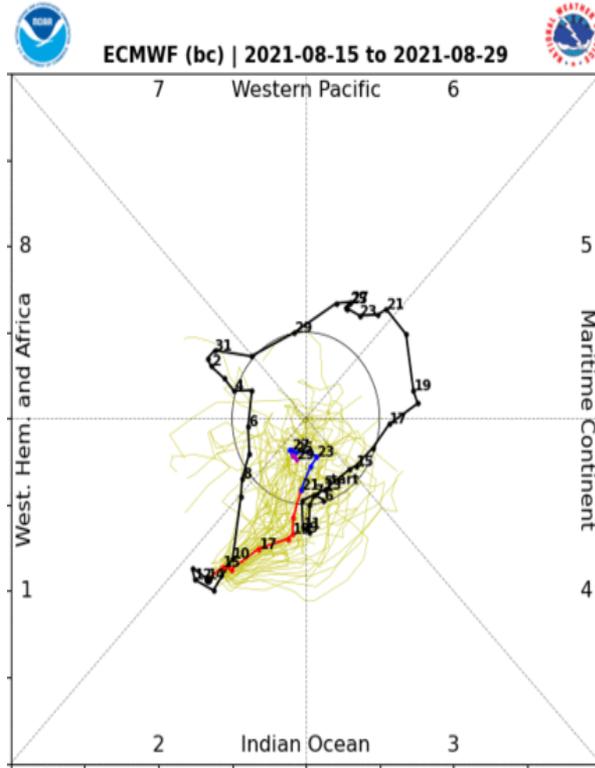


# MJO Observation/Forecast

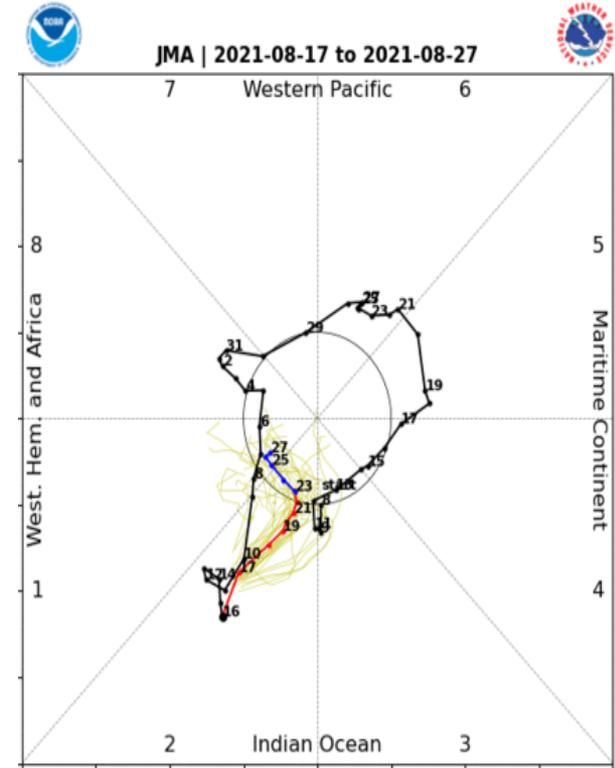
[RMM1, RMM2] forecast for Aug-17-2021 to Aug-31-2021



GFS



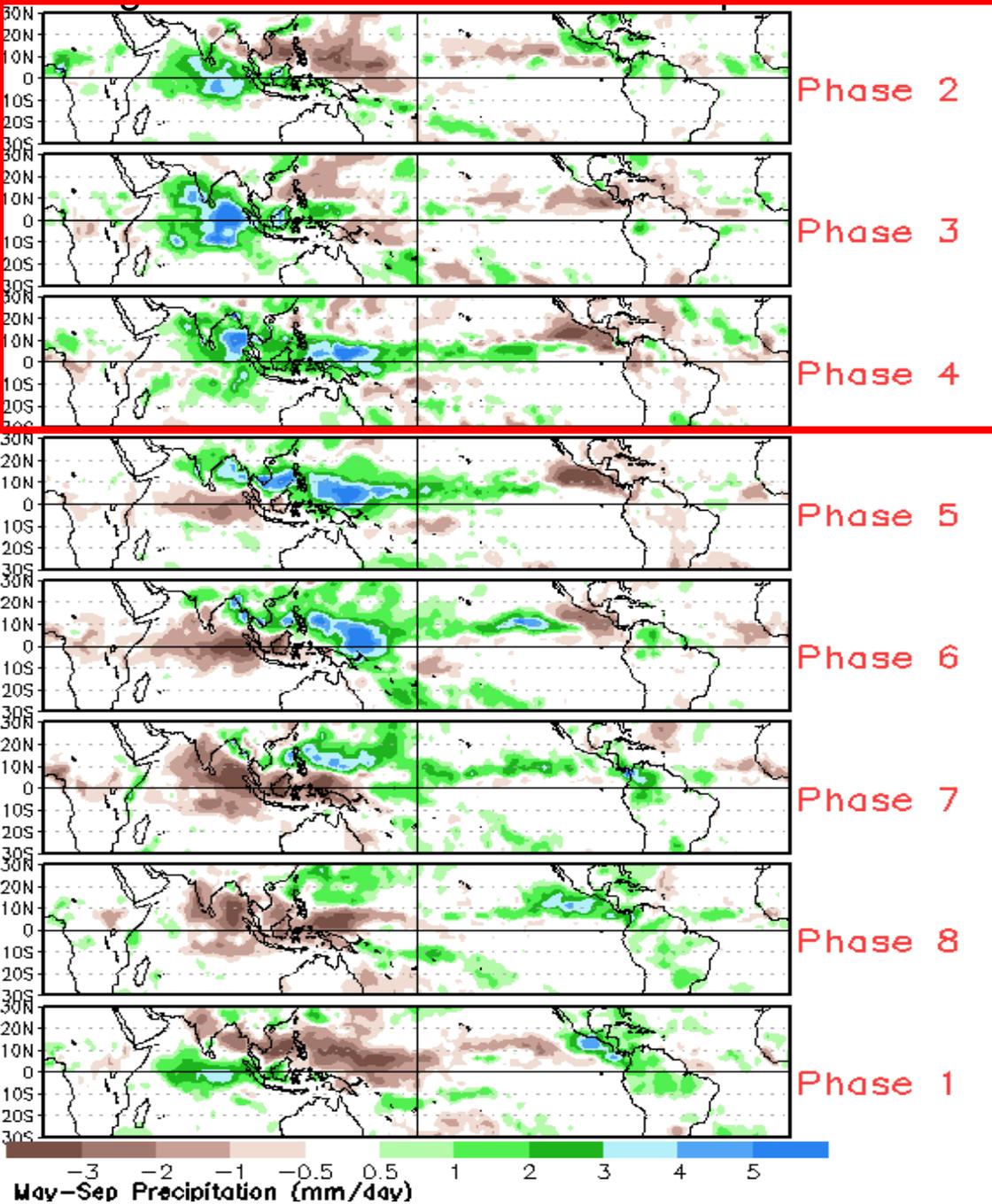
ECMWF



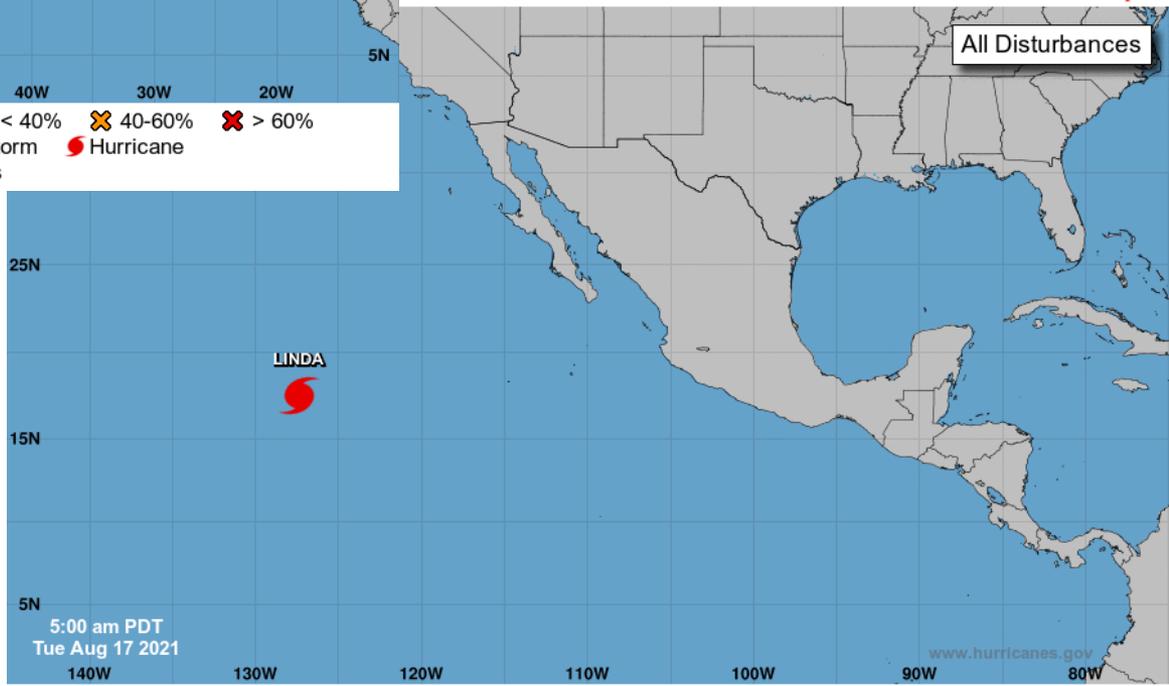
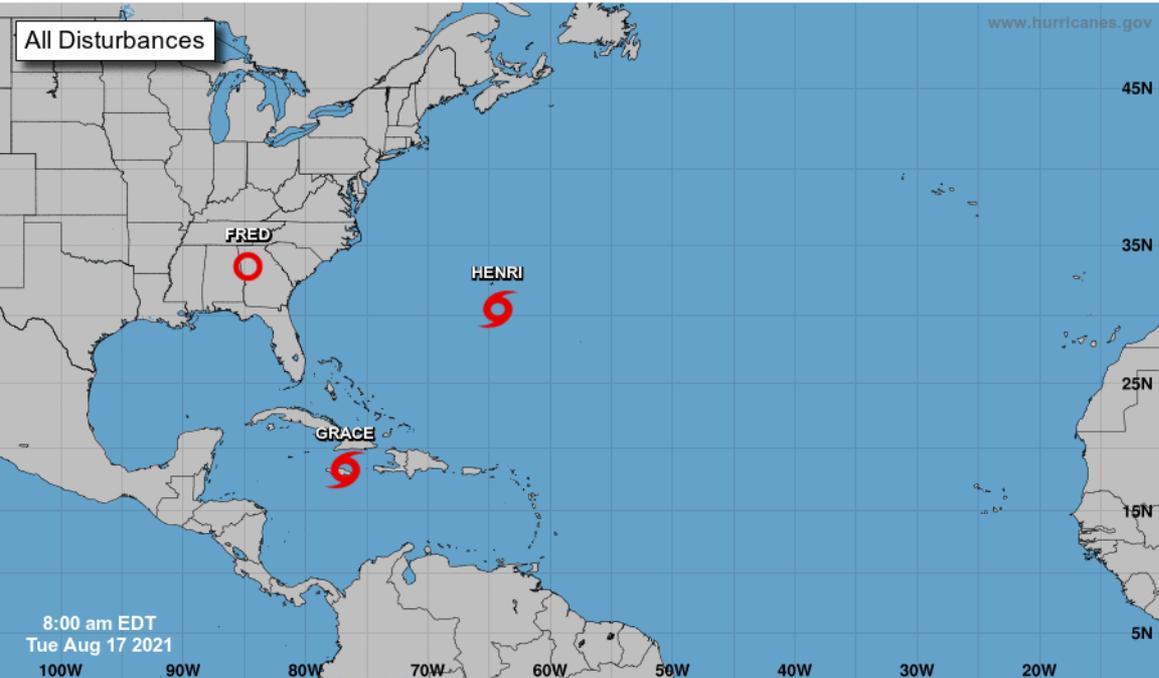
JMA

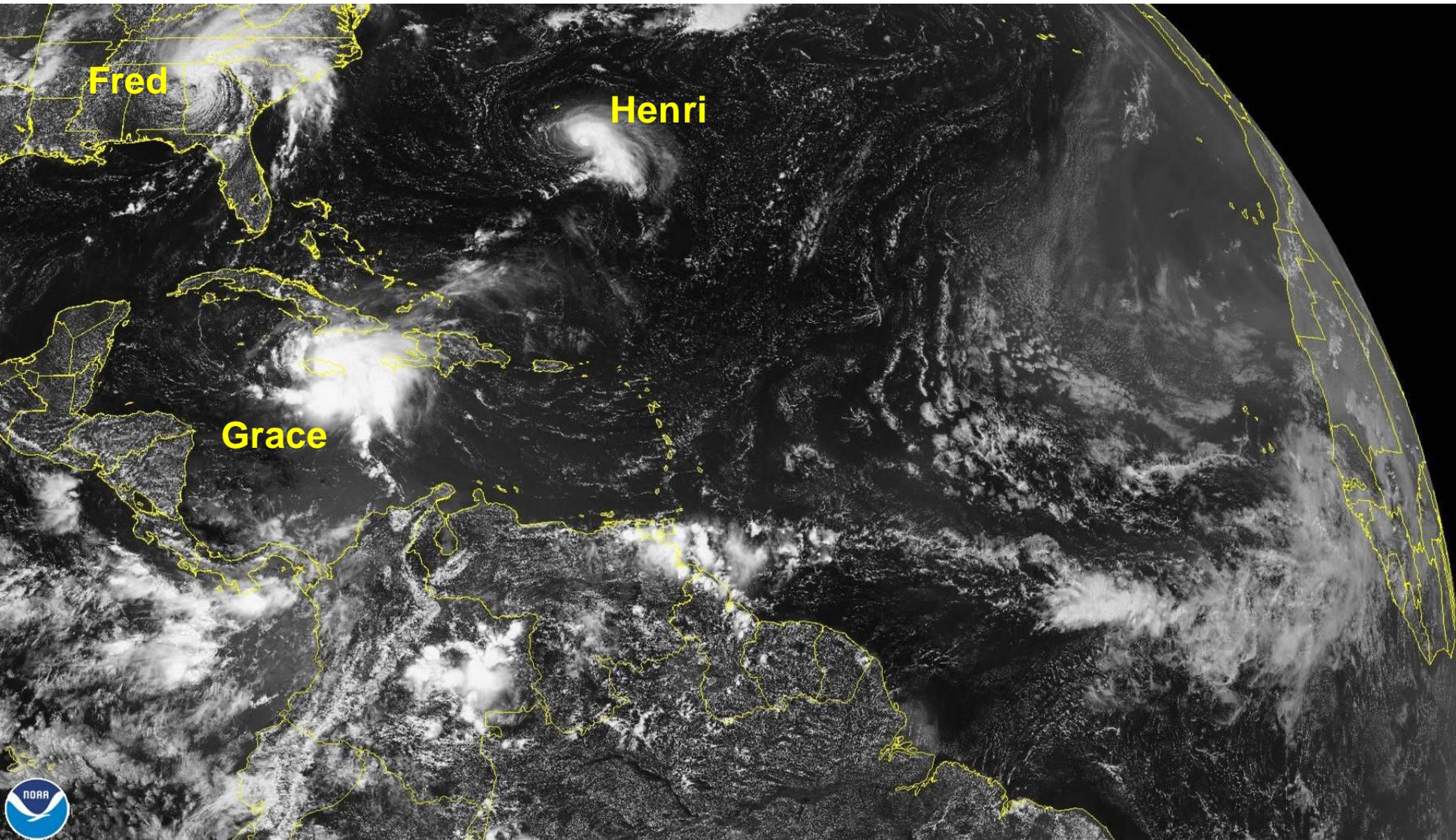
Large spread among GFS ensemble members but consensus is for a weakening MJO later this month.

# Average Conditions when the MJO is present



CAVEAT: These panels are representative of robust MJO events.





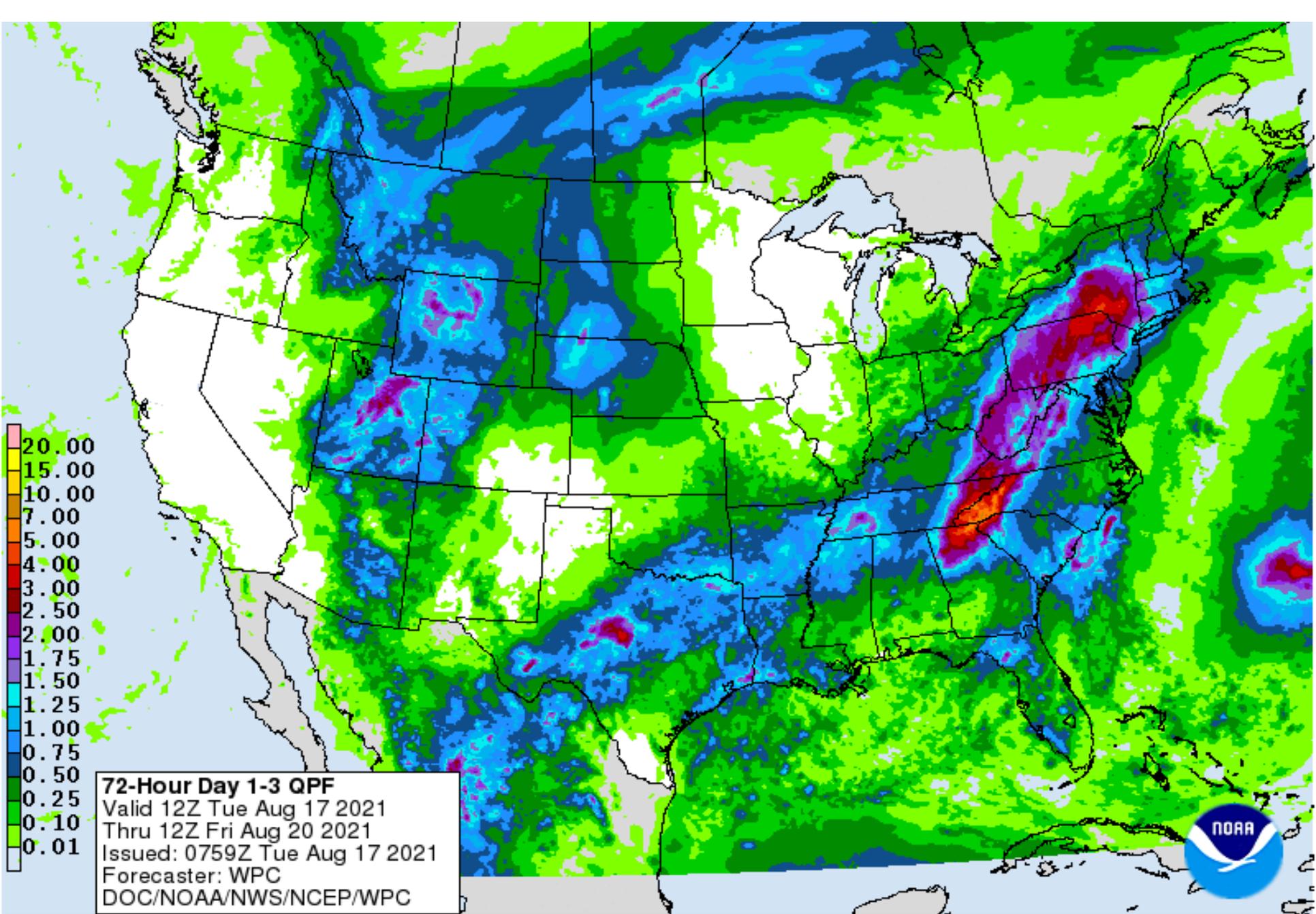
**Fred**

**Henri**

**Grace**



17 Aug 2021 17:00Z NOAA/NESDIS/STAR GOES-East Band 02

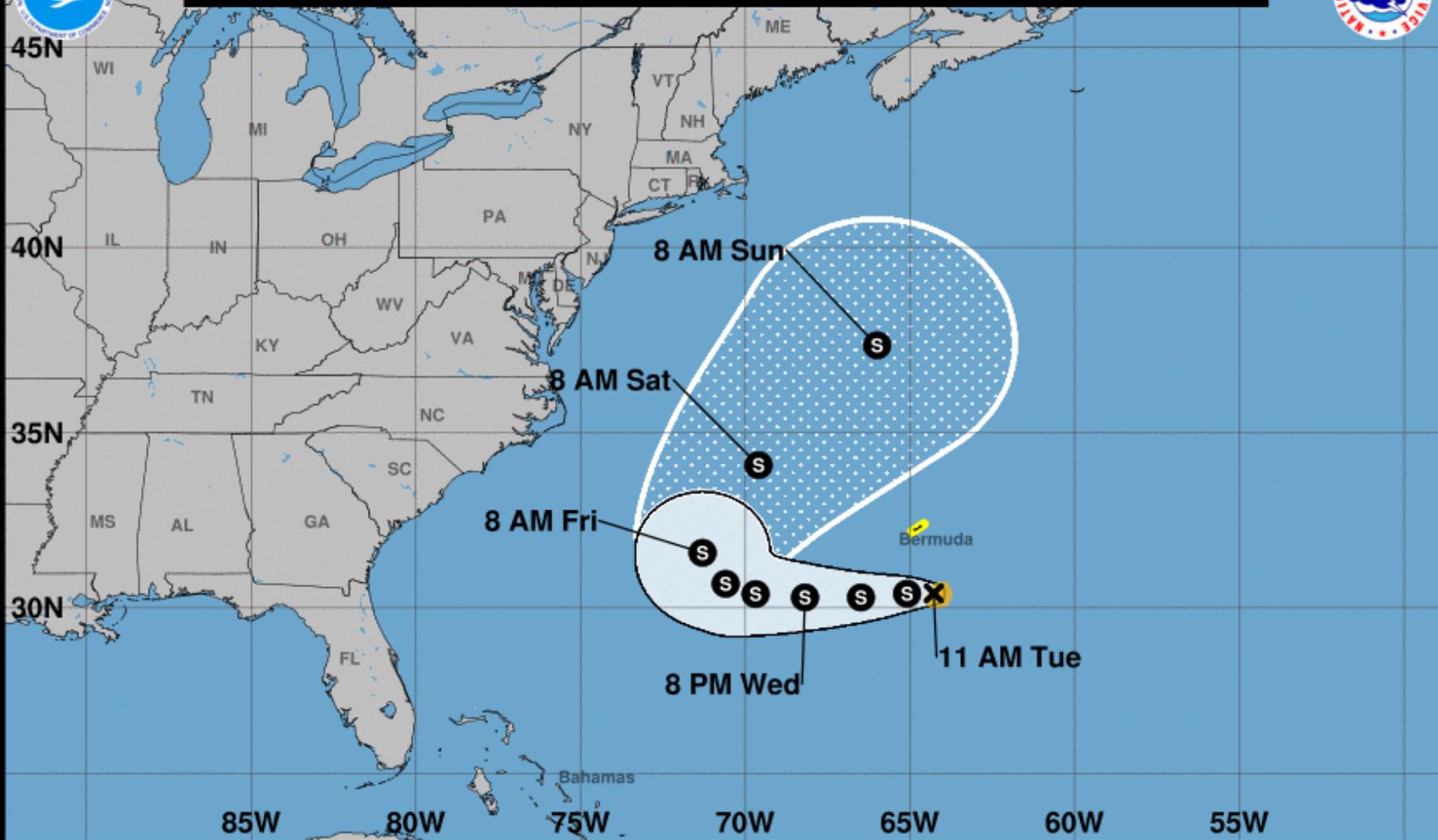


**72-Hour Day 1-3 QPF**  
Valid 12Z Tue Aug 17 2021  
Thru 12Z Fri Aug 20 2021  
Issued: 0759Z Tue Aug 17 2021  
Forecaster: WPC  
DOC/NOAA/NWS/NCEP/WPC





**Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.**



**Tropical Storm Henri**  
 Tuesday August 17, 2021  
 11 AM AST Advisory 7  
 NWS National Hurricane Center

**Current information: x**  
 Center location 30.4 N 64.3 W  
 Maximum sustained wind 50 mph  
 Movement WSW at 6 mph

**Forecast positions:**  
 ● Tropical Cyclone ○ Post/Potential TC  
 Sustained winds: D < 39 mph  
 S 39-73 mph H 74-110 mph M > 110 mph

**Potential track area:**



**Watches:**



**Warnings:**

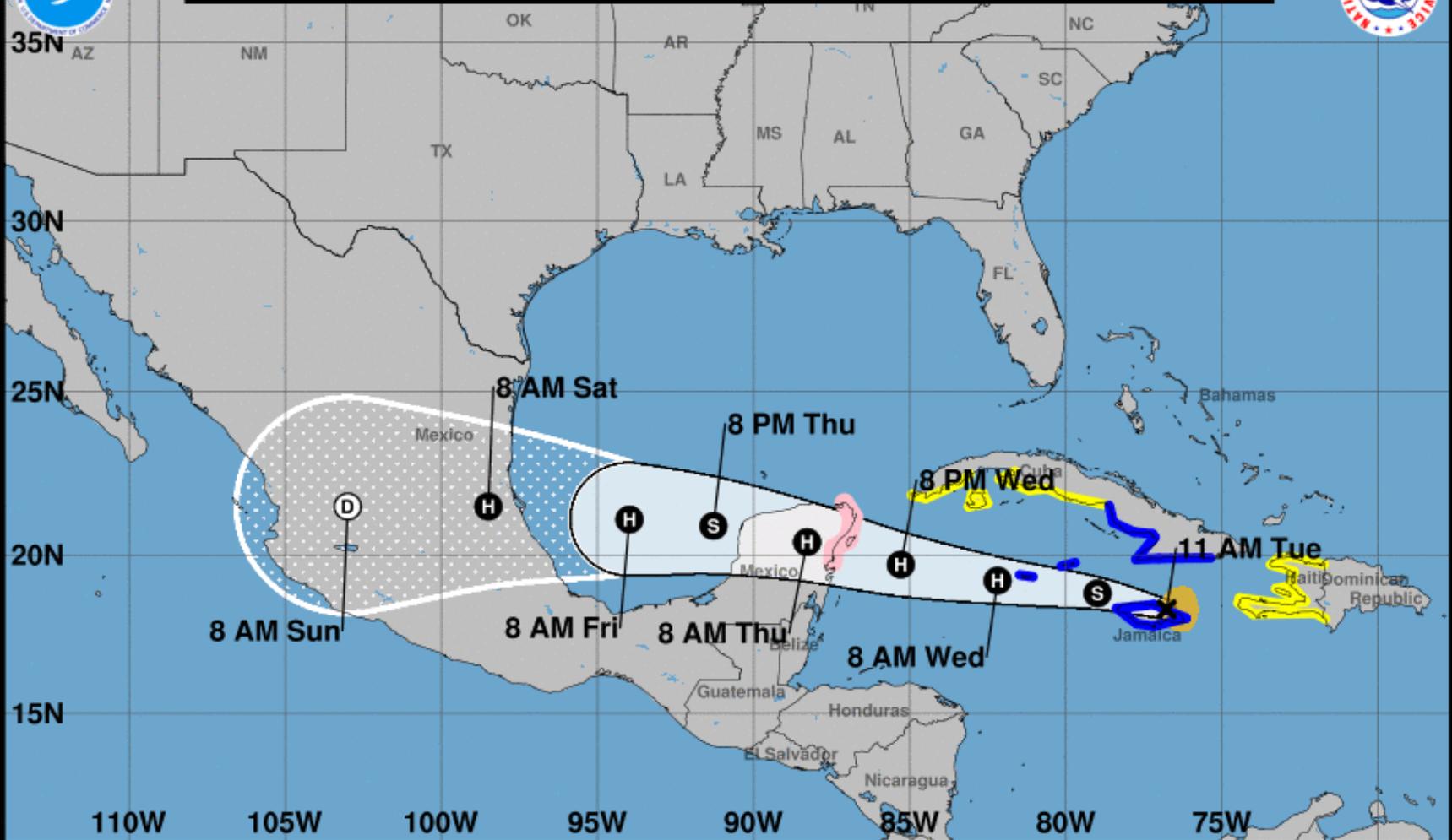


**Current wind extent:**





**Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.**



<b>Tropical Storm Grace</b> Tuesday August 17, 2021 11 AM EDT Advisory 17 NWS National Hurricane Center	<b>Current information: x</b> Center location 18.3 N 76.8 W Maximum sustained wind 50 mph Movement W at 15 mph	<b>Forecast positions:</b> ● Tropical Cyclone ○ Post/Potential TC Sustained winds: D < 39 mph S 39-73 mph H 74-110 mph M > 110 mph
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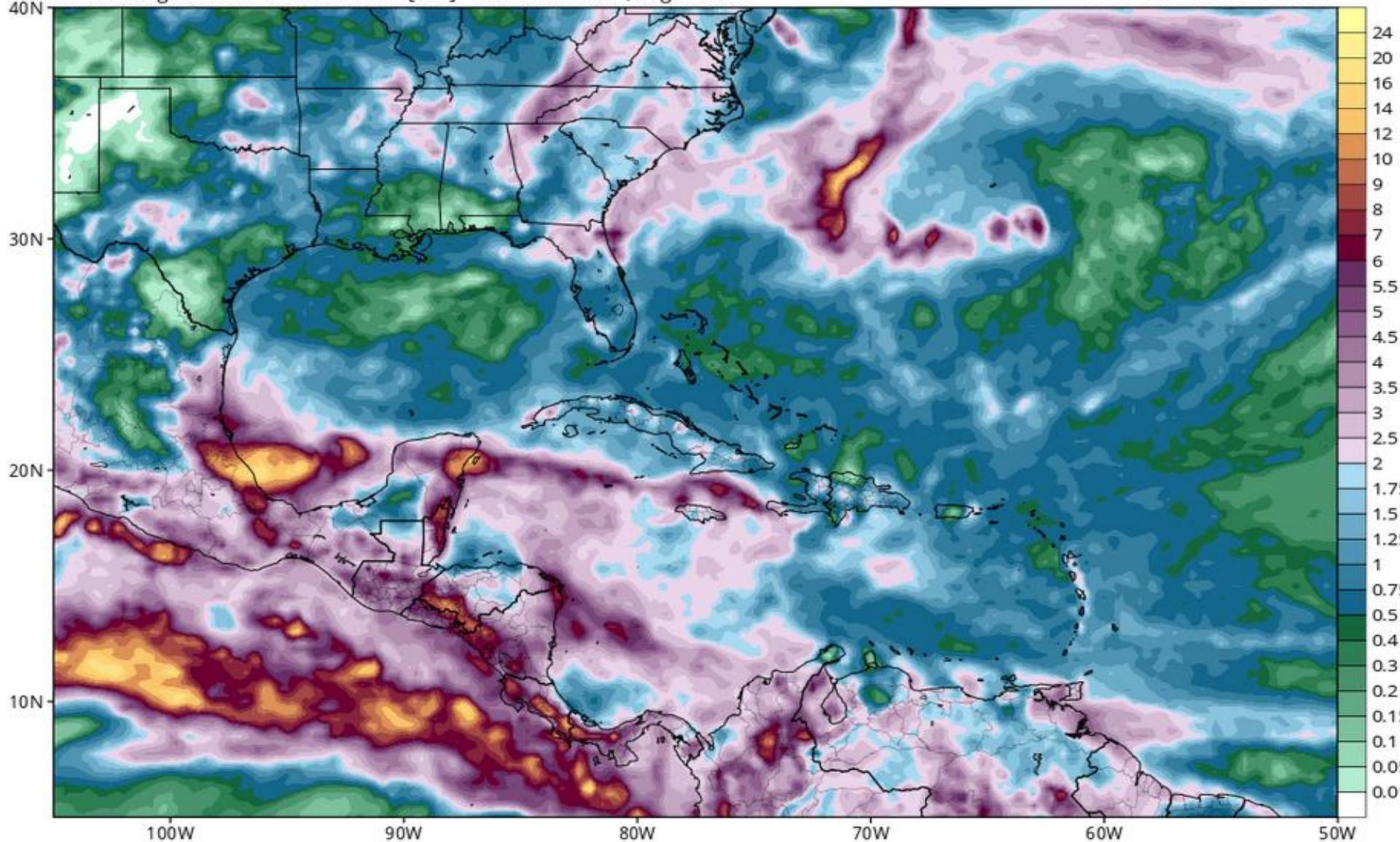
<b>Potential track area:</b> Day 1-3 (solid line) Day 4-5 (dotted line)	<b>Watches:</b> Hurricane (pink) Trop Stm (yellow)	<b>Warnings:</b> Hurricane (red) Trop Stm (blue)	<b>Current wind extent:</b> Hurricane (brown) Trop Stm (orange)
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### GFS Total Accumulated Precipitation (inches) from 06z17Aug2021 to 00z25Aug2021

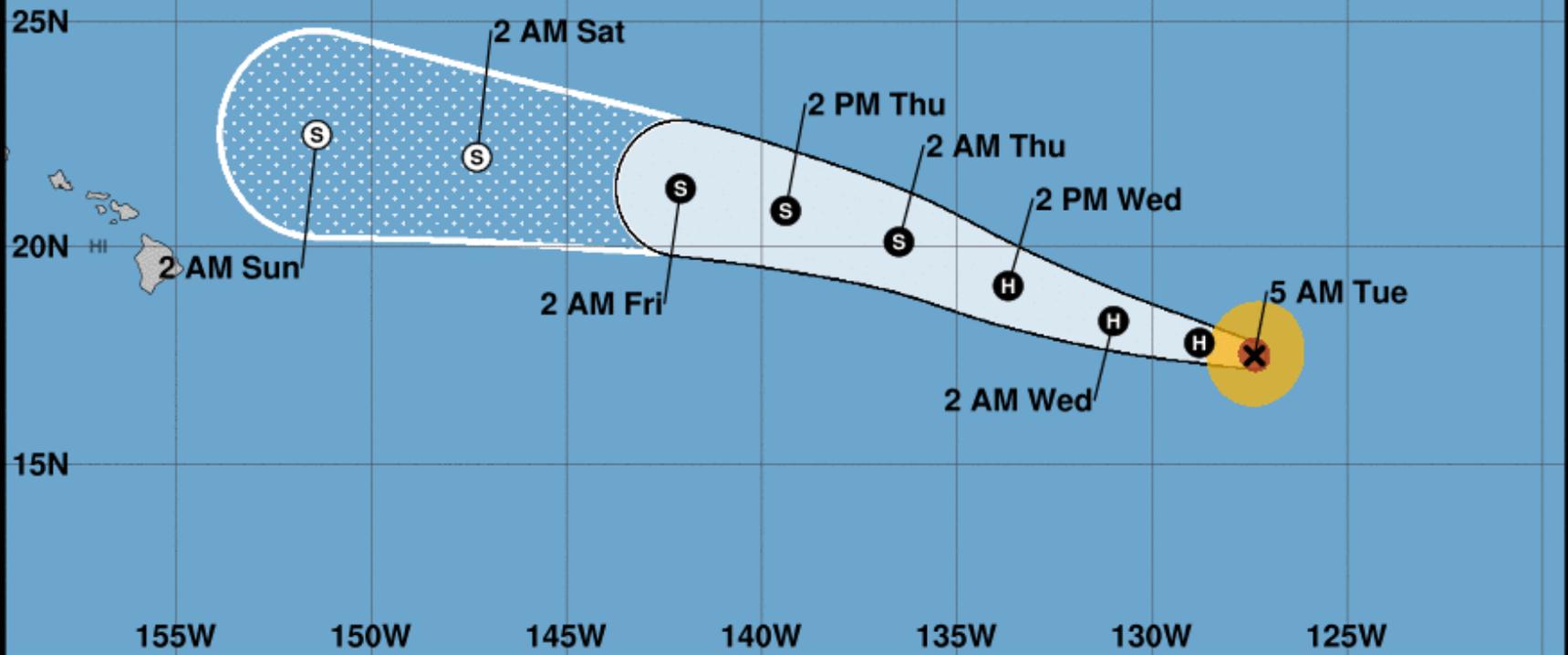
Init: 06z Aug 17 2021 Forecast Hour: [186] valid at 00z Wed, Aug 25 2021

TROPICALTIDBITS.COM





**Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.**



**Hurricane Linda**  
 Tuesday August 17, 2021  
 5 AM HST Advisory 30  
 NWS National Hurricane Center

**Current information: x**  
 Center location 17.5 N 127.4 W  
 Maximum sustained wind 85 mph  
 Movement W at 10 mph

**Forecast positions:**  
 ● Tropical Cyclone ○ Post/Potential TC  
 Sustained winds: D < 39 mph  
 S 39-73 mph H 74-110 mph M > 110 mph

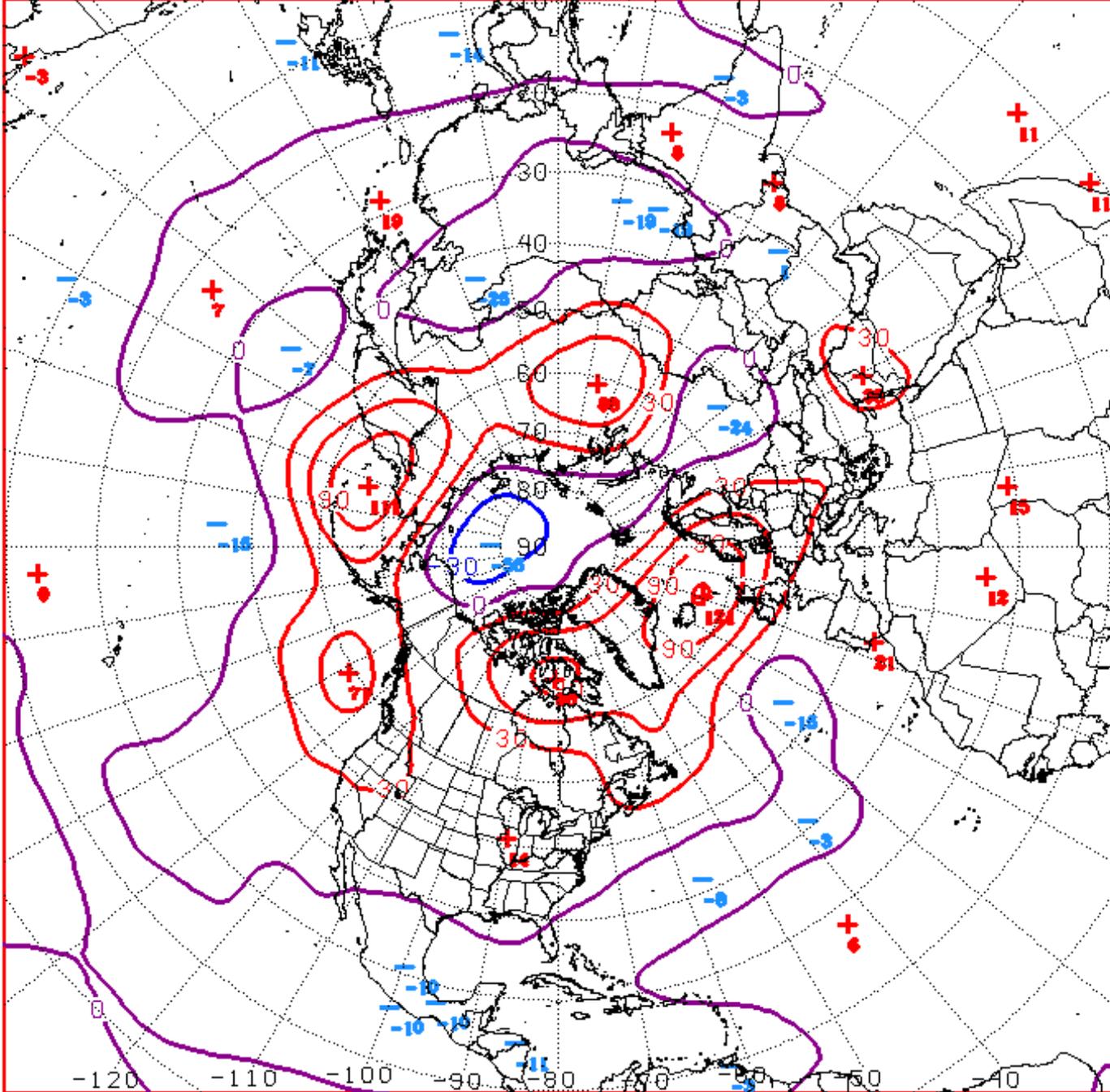
**Potential track area:**  
 Day 1-3 Day 4-5

**Watches:**  
 Hurricane Trop Stm

**Warnings:**  
 Hurricane Trop Stm

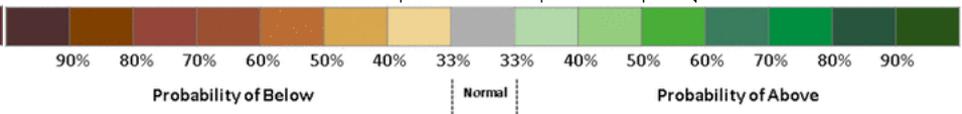
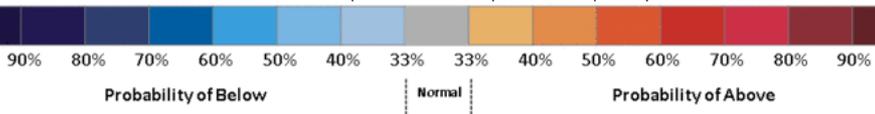
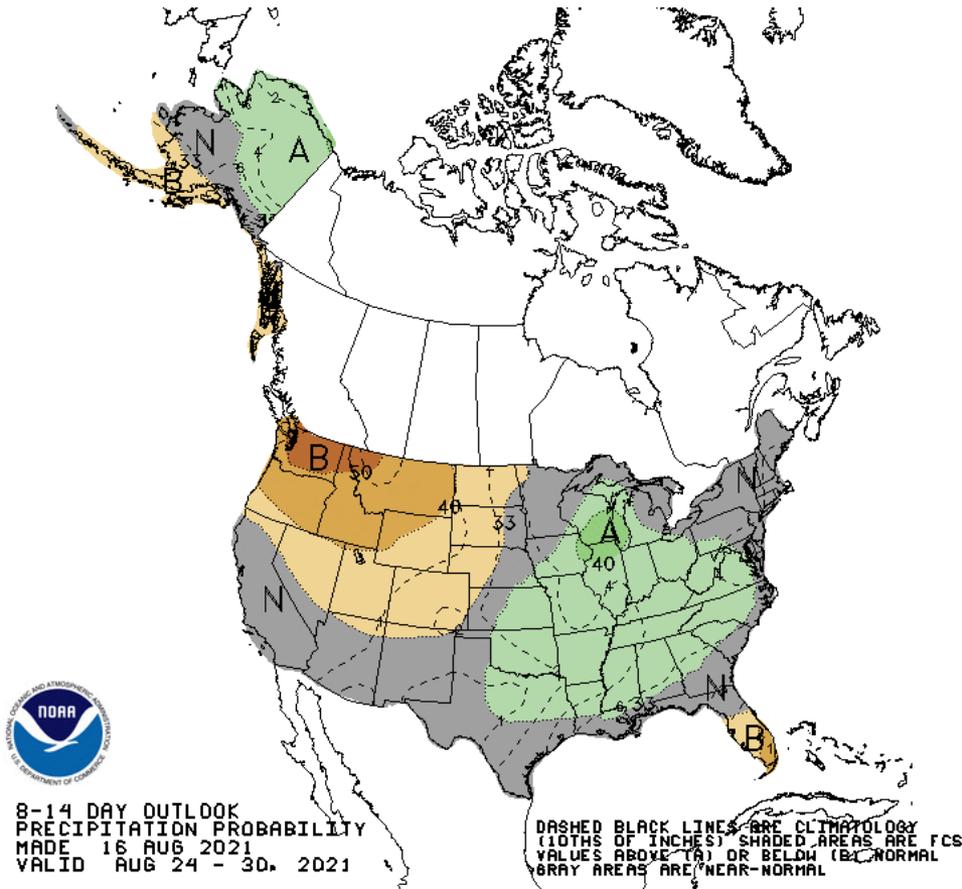
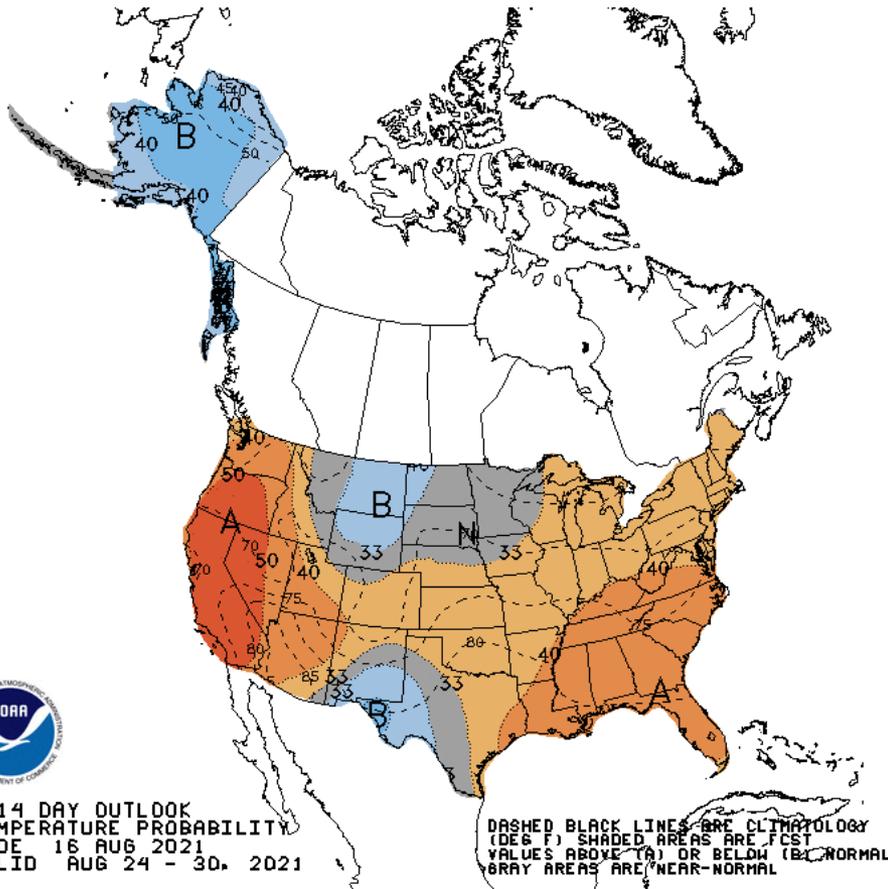
**Current wind extent:**  
 Hurricane Trop Stm

# Connections to U.S. Impacts



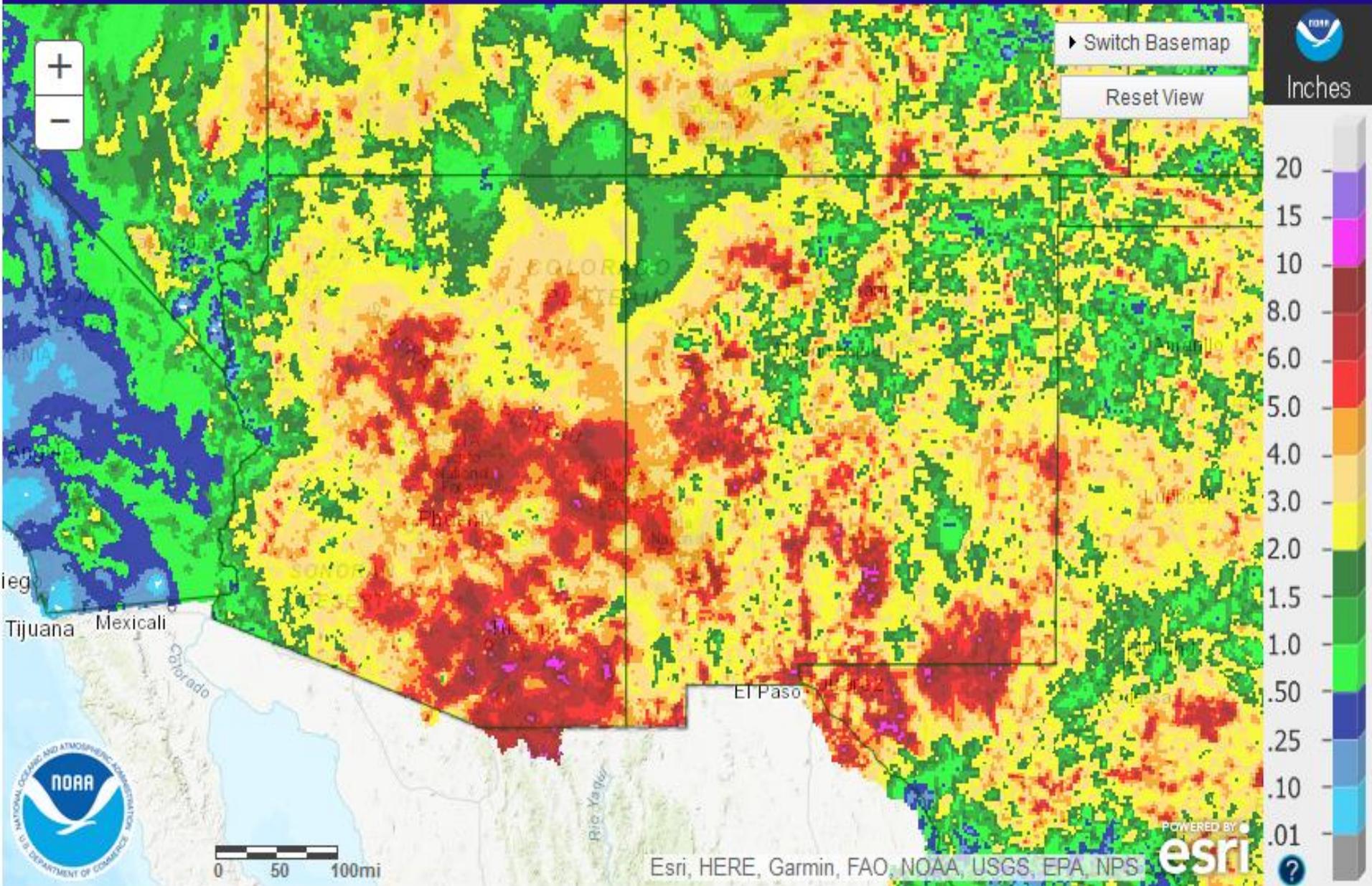
D+11 500 MB ANOMALIES FROM ALZ ENSM  
 CPC MAP MADE AUG 17 2021 1431 UTC CNTD AUG 28 2021

# Week 2 – Temperature and Precipitation



What is UTC time? Map Help

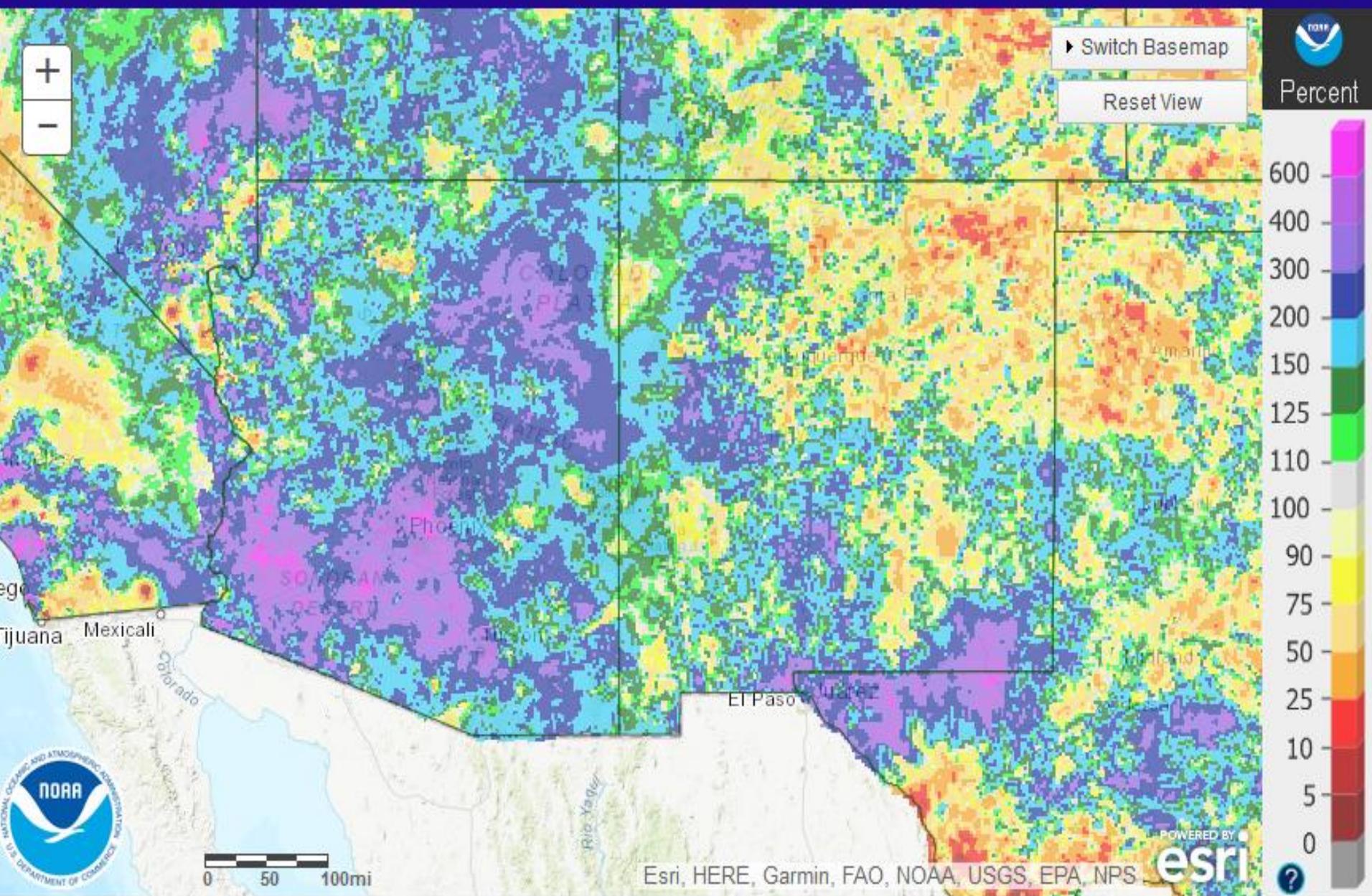
Find address or location



What is UTC time?

Map Help

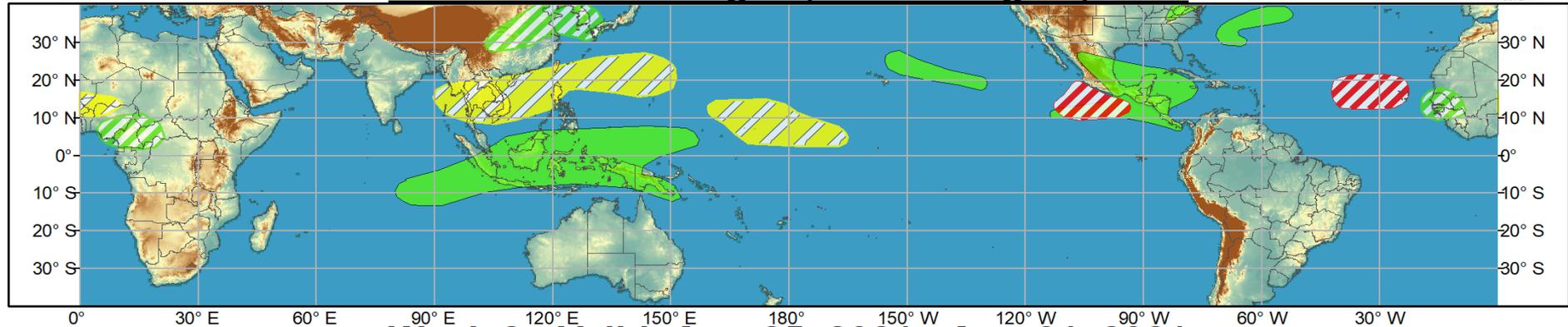
Find address or location



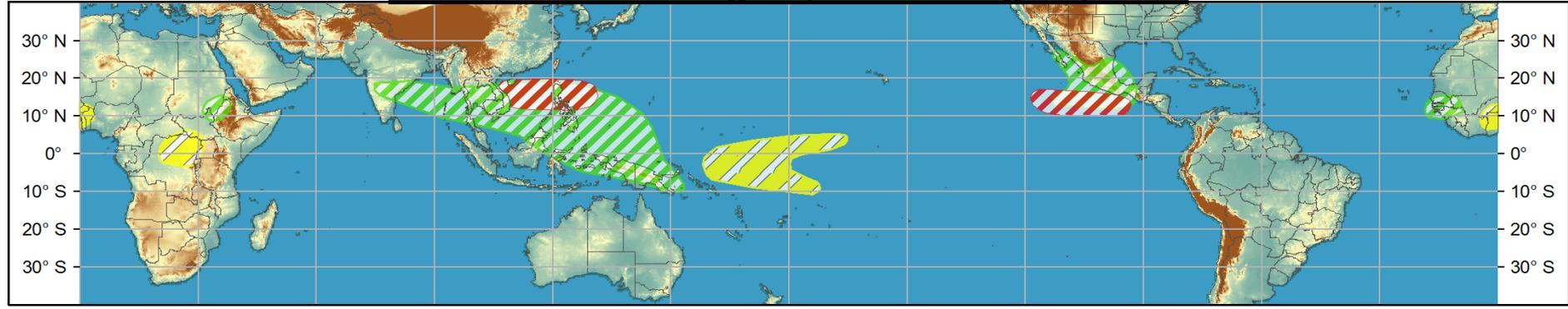


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